UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,297	06/09/2006	Graeme Moad	PP/15-22899/CGM 529/PCT	1651

324 7590 12/29/2006

CIBA SPECIALTY CHEMICALS CORPORATION
PATENT DEPARTMENT
540 WHITE PLAINS RD
P O BOX 2005
TARRYTOWN, NY 10591-9005

EXAMINER	
CHOI, LING SIU	
ART UNIT	**PAPER NUMBER**
1713	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,297	MOAD ET AL.	
	Examiner	Art Unit	
	Ling-Siu Choi	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,11-20 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,11-20 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/22/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the supplemental Preliminary Amendment filed September 21, 2006. Claims 9-10 and 21 were canceled and claims 1-8, 11-20, and 22 are now pending, wherein claims 1-8, 11-17, and 20 are drawn to a composition; claims 18-19 are drawn to a process to prepare the composition; claim 22 is drawn to an article; claim 1 is an independent claim.

Claim Analysis

2. Summary of Claim 1:

A composition comprising	
A	a synthetic polymer
B	a filler
C	A dispersing agent – an acrylic copolymer containing an alkyl acrylate or methacrylate comprising at least 8 methylene groups in the side chain

Summary of Claim 18 (claim 1):

A process to prepare a composition, comprising melt mixing of	
A	a synthetic polymer
B	a filler
C	A dispersing agent – an acrylic copolymer containing an alkyl acrylate or methacrylate comprising at least 8 methylene groups in the side chain

Claim Rejections - 35 USC § 102

3. **The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

> **A person shall be entitled to a patent unless --**
> **(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**

4. Claims 1-8, 13-16, 18, 20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Barbee et al. (WO 00/34393).

Barbee et al. disclose a polymer-clay nanocomposite and a process to make it, the polymer-clay nanocomposite comprising (a) a melt-processible matrix polymer, (b) a layered clay material, and (c) a matrix polymer-compatible functionalized oligomer or polymer, wherein the functionalized oligomer or polymer can be poly(2-ethylhexyl acrylate) and its copolymer, wherein 2-ethylhexyl group read on a group containing the specific arrangement of 8 methylene groups; the layered clay material can be montmorillonite, hectorite, mica, vermiculite, bentonite, nontronite, beidellite, volkonskoite, saponite, magadite, or kenyaite (abstract; page 17, lines 2-3). Attention is drawn to Example 1, wherein (b)/(a) =6.36g/200g = 3.18 wt% and (c)/(a) = 3.07 g/200 g = 1.54 wt%. Barbee et al. further disclose that the polymer-clay nanocomposite also comprises pigment,stabilizer, compatibilizer, or plasticizer (page 18, lines 5-13). Thus, the presence claims are anticipated by the disclosure of Barbee et al.

5. Claims 1-3, 17-20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Mitsuno et al. (WO 0 311 723 A1).

Mitsuno et al. disclose a composition comprising (a) 27-87 wt% of a polypropylene resin, (b) 3-15 wt% of a modified polypropylene resin containing an unsaturated dicarboxylic acid or anhydride repeating unit, (c) 5-30 wt% of an ethylene copolymer composed of ethylene repeating unit, an **alkyl (meth)acrylate** with the alkyl moiety having 1-**8 carbon atoms**, and an unsaturated dicarboxylic acid anhydride repeating unit, and (d) 5-40 wt% of a filler, wherein the filler can be a clay or mica (abstract). Mitsuno et al. further disclose that the dry blend of components which form the composition are melt-kneaded at 220°C (page 6, line 29). Thus, the present claims are anticipated by the disclosure of Mitsuno et al.

6. Claim1-3, 11-12, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Mc Intyre et al. (EP 1 167 475 A2).

Mc Intyre et al. disclose an aqueous coating composition comprising (a) an aqueous carrier medium; (b) transparent iron oxide pigment particles; (c) a mixture of acrylic copolymer pigment dispersants containing (i) a acrylic copolymer dispersant having a hydrophilic stabilizing segment and a hydrophobic adsorbing segment having acid groups attached thereto and (ii) an acrylic copolymer dispersant having a hydrophilic stabilizing segment and a hydrophobic adsorbing segment having phosphate group attached thereto, and (iii) an acrylic copolymer dispersant having a

hydrophilic stabilizing segment and a hydrophobic adsorbing segment having alkyl amino groups and preferably benzyl groups attached thereto; (d) a film forming polymeric binder; and (e) a crosslinking agent for the binder, wherein **component (i)** is a random acrylic copolymer comprises alkyl (meth)acrylate monomer with the **alkyl group** having 1-**12 carbon atoms**, acrylic acid or methacrylic acid, hydroxyl alkyl (meth)acrylate monomer with alkyl group having 1-4 carbon atoms, and a acrylamide-2-methyl propane sulfonic acid monomer (abstract; claims 1 and 7). Thus, the present claims are anticipated by the disclosure of Mc Intyre et al.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114.

LING-SUI CHOI
PRIMARY EXAMINER

December 20, 2006